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Koji Matsumoto

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EXAMINER

MILLER, MICHAEL G

ART UNIT

PAPER NUMBER

1792

NOTIFICATION DATE

DELIVERY MODE

01/30/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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## **DETAILED ACTION**

### ***Response to Amendment***

1. Examiner notes the amendment filed 06 JAN 2009. For purposes of appeal, this amendment will be entered, as it introduces no new matter into the application. Claims 1-6 and 8-10 would still be rejected on the same grounds as in the Final Rejection, as the subject matter incorporated into Claim 1 is taught in Isozaki.

### ***Response to Arguments***

2. Applicant's arguments filed 06 JAN 2009 have been fully considered but they are not persuasive.

3. Applicant's first argument is that neither Isozaki nor Starzewski, alone or in combination, teach the invention as claimed. As the rejection is made over a combination of references, Examiner will address the combination. As discussed in the previous Office Action, Isozaki teaches dipping a PVA film on which iodine is adsorbed and oriented into an aqueous solution containing boric acid (Column 6 Lines 38-50). Isozaki does not teach suppressing contact between the aqueous solution and oxygen. Isozaki does teach that a heat treatment may be performed after dipping and that oxidation can occur during heat treatments which can discolor the film and as such, oxygen should be excluded from the heat-treating step (Column 4 Lines 1-12 and 59-67). Starzewski teaches that a heat treatment performed after the fixing step can improve the polarization properties of a PVA film and that this treatment should be

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conducted in the absence of oxygen (Column 2 Lines 4-7 and Column 4 Line 66 – Column 4 Line 31). The motivation to combine these teachings is that both teachings want to produce a PVA film with polarization properties and Starzewski teaches a method that improves said polarization properties. At this point, it is known to suppress oxygen contact with the PVA film before and after dipping to avoid deleterious effects to the PVA film. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to suppress oxygen contact with the aqueous solution during the dipping phase, because if oxygen enters the aqueous solution and contacts the film during dipping it can be entrained into the post-fixing heating phase which would cause the aforementioned deleterious effects. DesMarais and Dempo are not required to cure the deficiency of no motivation to combine, because the motivation is found in Isozaki and Starzewski as discussed above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL G. MILLER whose telephone number is (571)270-1861. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571) 272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Michael G. Miller/  
Examiner, Art Unit 1792

/Michael Cleveland/  
Supervisory Patent Examiner, Art Unit 1792